

## **ABSTRACT**

An apparatus and device for fusing two or more foam components together by thermal welding, the apparatus and device comprising an interface blade adapted for placement at an interface of foam components to be fused together, and a nozzle proximate to the interface blade for distributing a heated gas at the interface of the foam components. The nozzle may be located in a shroud proximate to the interface blade. An automated foam welding apparatus has a platform for supporting foam components or other components, a clamp for applying pressure to one or more of the foam components, and one or more welding heads mounted upon a track for translation proximate to the foam components to be welded together, the welding heads having an interface blade and a heated gas distribution nozzle, and optionally a trimmer for trimming excess material from one or more of the foam components. A hand-held foam welding device is also described.

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